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U.S. Serial No. 10/675,899  
Response to the Office Action of January 11, 2007

Docket CU-3335

## REMARKS

Prior to this amendment, claims 1-9 and 12-19 were pending in this application. Upon entry of this amendment, claims 8 and 17 will be cancelled.

In the office action mailed January 11, 2007, claims 1, 4, 6-8 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over a three-way combination of references: U.S. pre-grant publication 2001/0008036; U.S. patent 2,668,979 to MacFarland; and GB patent 2,324,712 to Lee.

The Examiner contends that MacFarland and Worwag show all of the limitations of claim 1 and claim 9, except for the limitations that were added to claim 1 and 9 by the applicant's last response. More particularly, the Examiner contends that MacFarland and Worwag disclose everything in claim 1 except for the discharge pipe at a rear side of the brush body and the "locking unit attached to a rear portion of the discharge pipe...."

Lee was cited as teaching a vacuum cleaner having a brush body (13) that includes a discharge pipe (13a). The Examiner contends that the locking unit of claims 1 and 9, which was added by the applicant in the last response, corresponds to the entire structure identified by reference numeral 150 in FIG. 4 of Lee. The Examiner also contends that it would have been obvious to combine that structure of Lee, with Worwag and MacFarland.

The Examiner's rejection under 35 U.S.C. §103(a) because of Lee, Worwag and MacFarland is improper and must be withdrawn.

MPEP section 706.02(j) states that an examiner must make three showings in order to establish obviousness. First, there must be some suggestion or motivation, either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine references teachings. Second, there must be a reasonable expectation of success. Finally, the combined prior art references must teach or suggest all the claim limitations.

In the applicant's last response, claim 1 was amended to recite that the brush body has a discharge pipe at a rear side of the brush body. The claim also requires the discharge pipe to also have a rear portion. The rear portion of the discharge pipe was also claimed to have a hook and a button. The claim thus requires a hook and button to be located on the rear portion of the discharge pipe that is located at the rear of the

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brush body. The hook engages a coupling recess in an extension pipe inserted into the discharge pipe. The hook is disengaged by operation of a button.

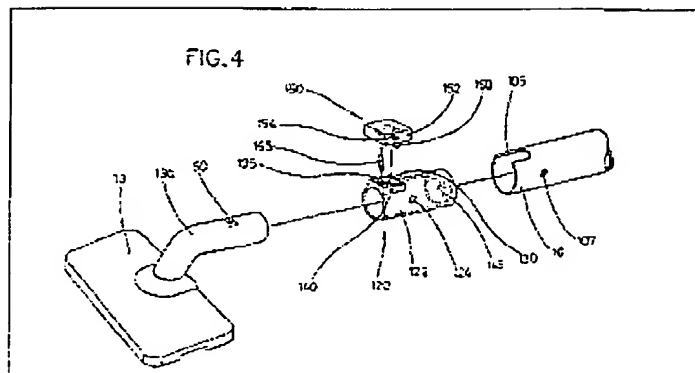
Worwag clearly discloses a brush body with a discharge pipe at a rear side. Lee also discloses a brush body (13) and a discharge pipe 13(a), however, the discharge pipe (13a) of Lee clearly shows a recess (50) at virtually the same location where the pending claims require a hook and a button. In other words, what Lee teaches is distinctly different from what is claimed.

Beginning on page 4 at line 22, Lee teaches that it would have been cost-prohibitive to modify a vacuum cleaner brush body to add a hook and button as the applicant's claims require. Lee's solution to the connectivity problem of prior art vacuum cleaner brushes and wands was to invent a separate apparatus for connecting a vacuum cleaner brush to a wand. Lee did not consider it feasible to add a hook and control button to a vacuum cleaner brush as the applicant's claims now require; he instead invented a completely different structure.

In light of what Lee teaches about the prior art, namely that it would have been too costly and too complex to add a latch mechanism to a cleaner brush and that it was preferable to use a separate coupling, the Examiner's combination of Lee with Worwag and MacFarland to find the pending claims obvious was improper.

The combination of Lee, Worwag and MacFarland also does not satisfy all of the pending claim limitations.

The Lee reference is entitled "Apparatus for Connecting Vacuum Cleaner Brush to Wand." FIG. 4 of the Lee reference shows the apparatus on which the Examiner's rejection relies. A copy of FIG. 4 is inset below.



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As set forth above, Worwag and Lee both show a vacuum cleaner brush having a discharge pipe on the rear portion of the brush. The Lee apparatus, however, shows a recess 50 at substantially the same place where the pending claims require a hook mechanism. Nobody of ordinary skill in the art would be motivated by Lee to replace the recess 50, with a hook and button mechanism when Lee teaches that it would be too complex or expensive to do so. Anyone of ordinary skill in the art who considered Lee would instead be led to believe that it would be preferable to use a separate coupling mechanism, such as the mechanism claimed in the Lee reference.

The Examiner has not properly combined the teachings of Lee with Worwag and MacFarland as the teachings of those references require. The Examiner's rejection is based on his *sua sponte* extraction of a particular component from Lee, i.e., a hook mechanism, and his assembly of that particular component with structures shown in Worwag and MacFarland. In other words, the Examiner has engineered the claimed apparatus from different references without regard to what those references actually teach or advocate, namely, the teachings of Lee, which is that a separate coupler should be used to join a vacuum cleaner brush to a wand.

Notwithstanding the foregoing reasons why the claim rejections were improper, the applicant has nevertheless amended the independent claims to further distinguish the pending claims from the cited references.

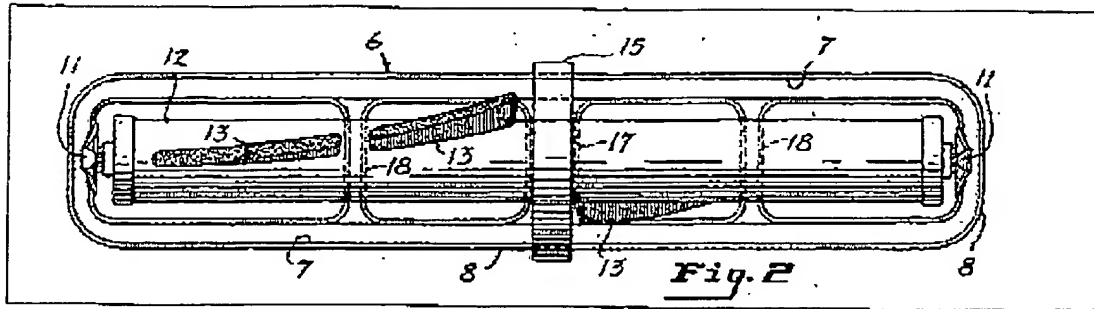
Independent claim 1 has been amended to incorporate limitations from claim 8; claim 9 has been amended to incorporate limitations from claim 17. Claims 8 and 17 have been cancelled.

The amended independent claims now recite that the ribs of the suction slot of the lower casing are shaped and configured to increase in width from middle to end.

In the office action, the Examiner cited FIG. 2 of MacFarland as satisfying claims 8 and 17, however, an inspection of MacFarland's FIG. 2 (see inset below) does not show any sort of structure that is a rib structure that increases in width from its middle to its end. The amended independent claims therefore avoid the references that were cited by the Examiner.

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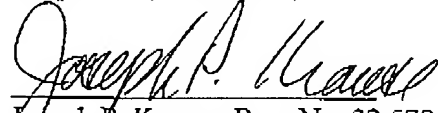


For the reasons set forth above, the rejection under 35 U.S.C. §103 was improper and should be withdrawn. This amendment should therefore be entered under Rule 116.

Moreover, the claims are also allowable since no reference or combination of references cited by the Examiner shows or suggests the limitations of claims 1 and 9 as amended above. Reconsideration of the claims is respectfully requested.

Respectfully submitted,

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